



RBI allows Trade Settlements in Rupee

For Prelims: Foreign Trade, Currency Depreciation & Appreciation, Global Sanctions, Balance of Payments

For Mains: Effect of global sanctions on economy of India, Benefits and challenges of settling trade in Rupee, Intervention of government in economy

Why in News?

Recently, the [Reserve Bank of India \(RBI\)](#) has put in place a mechanism to facilitate International Trade in Rupees (INR), with immediate effect.

- However, banks acting as authorised dealers for such transactions **would have to take prior approval from the regulator to facilitate this.**
- As per the broad framework for cross-border trade transactions in INR under [Foreign Exchange Management Act, 1999 \(FEMA\)](#), all exports and imports under this arrangement may be **denominated and invoiced in rupee (INR)** and the exchange rate between the currencies of the two trading partner countries may be **market determined.**

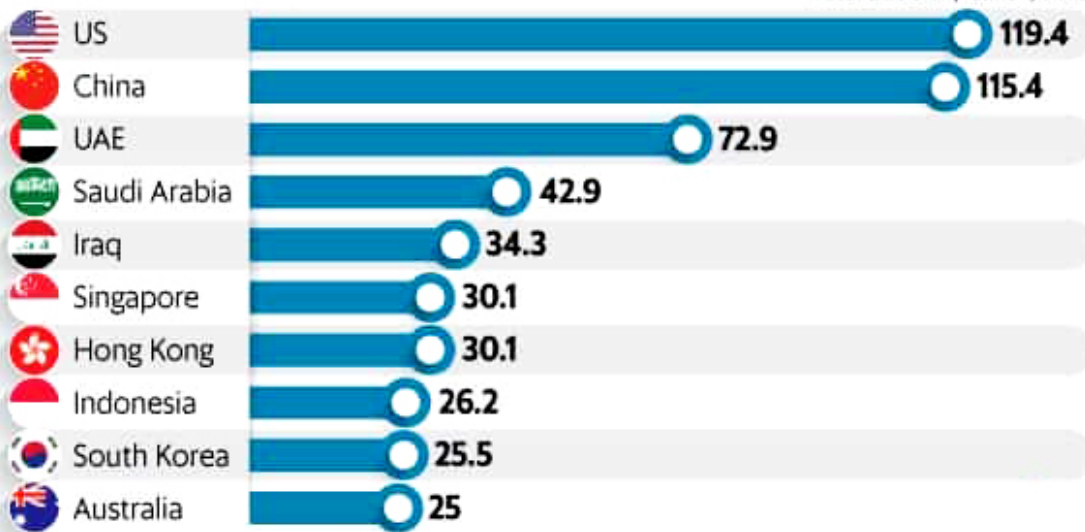
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RUPEE SWITCH

The new measure will promote trade growth, with an emphasis on exports from India, and support the interest of the trading community in rupee, RBI said.

India's top trading partners

Total trade in \$ billion, FY22



COLLATERAL GAIN

THE pressure on India's forex reserves is likely to diminish

RBI'S measure shows Russia's significance as India's trading partner

SOME analysts see RBI's move as a step to stabilize the rupee

What is Rupee Payment Mechanism?

▪ About:

- Authorised Dealer Banks in India had been **permitted to open Rupee Vostro Accounts (an account that a correspondent bank holds on behalf of another bank)**.
 - **Indian importers undertaking imports** via this mechanism will make payment in **INR** which will be **credited into the Special Vostro account** of the correspondent bank of the partner country, against the invoices for the supply of goods or services from the overseas seller.
 - **Indian exporters** using the mechanism will be paid the export proceeds in **INR** from the **balances in the designated Special Vostro account** of the correspondent bank of the partner country.
 - Indian exporters **may receive advance payment** against exports from overseas importers in Indian rupees through the above Rupee Payment Mechanism.
 - Before allowing any such receipt of advance payment against exports, **Indian banks need to ensure that available funds in these accounts are first used towards payment obligations** arising out of already executed export orders/export payments in the pipeline.
 - Balance in Special Vostro Accounts can be used for: payments for projects and investments, export/ import advance flow management, and investment in Government Treasury Bills, **Government securities**, etc.

▪ Existing Mechanism:

- If a company exports or imports, transactions are always in a foreign currency (**excluding with countries like Nepal and Bhutan**).

- So, in case of imports, the **Indian company has to pay in a foreign currency** (mainly dollars and could also include currencies like pounds, Euro, yen etc.).
- The Indian company **gets paid in foreign currency** in case of exports and the company converts that foreign currency to rupee since it needs rupee for its needs, in most of the cases.

What are the Benefits of this Mechanism?

- **Promote Growth:**
 - It will **promote growth of global trade** and will **support the increasing interest of the global trading** community in INR.
- **Trade with Sanctioned Countries:**
 - Ever since **sanctions were imposed on Russia**, trade has been virtually at standstill with the country due to payment problems.
 - As a result of the trade facilitation mechanism introduced by the RBI we see the **payment issues with Russia easing.**
- **Forex Fluctuation:**
 - The move would also **reduce the risk of forex fluctuation**, especially looking at the Euro-Rupee parity.
- **Arrest Fall of Rupee:**
 - Amid ongoing rupee weakness, this mechanism aims at **reducing demand for foreign exchange, by promoting rupee settlement of trade flows.**

What Initiatives has India taken for International Trade?

- **Rupee Rouble Agreement:**
 - **The Rupee-Rouble trade arrangement** is an alternative payment mechanism to **settle dues in Rupees instead of Dollars or Euros.**
 - **The State Bank of the U.S.S.R.** will maintain one or more accounts with one or more **commercial banks in India**, authorised to deal in foreign exchange. In addition, the **State Bank of the USSR will**, if that Bank considers necessary, maintain another account with the **Reserve Bank of India.**
 - Payments made **to and by Indian residents and USSR residents will be done only** in those specified accounts by debiting/crediting.
- **Free Trade Agreements:**
 - India has recently signed a **Free Trade Agreement with Australia & UAE.**
 - FTA is a **pact between two or more nations to reduce barriers to imports and exports** among them.
 - Under a free trade policy, **goods and services can be bought and sold** across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.
 - The concept of free trade is the **opposite of trade protectionism or economic isolationism.**
- **Indo-Pacific Economic Framework:**
 - India has joined a **US-led initiative to set up an Indo-Pacific Economic Framework (IPEF)** and this move would help boost economic ties further.
 - The US has consistently been India's largest market for services exports, but the recent overseas sales of merchandise goods to that **country overtook China**, making it the **largest bilateral trading nation of India.**

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. With reference to Balance of Payments, which of the following constitutes/constitute the Current Account? (2014)

1. Balance of trade
2. Foreign assets
3. Balance of invisibles

4. Special Drawing Rights

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 3
- (d) 1, 2 and 4

Ans: C

Explanation:

- The Balance of Payments (BoP) is composed of two main aspects: Current Account and Capital Account.
- The Current Account of BoP measures the inflow and outflow of goods, services, investment incomes and transfer payments. Trade in services (invisibles), trade in goods (visibles), unilateral transfers, remittances from abroad, and international aid are some of the main components of the Current Account. When all the goods and services are combined, together they make up the Balance of Trade (BoT) of a country. **Hence, 1 and 3 are correct.**
- Capital Account of BoP records all those transactions, between the residents of a country and the rest of the world, which cause a change in the assets or liabilities of the residents of the country or its government.
- Loans and borrowing by private or public sectors, investments, and changes in the forex reserves are some of the examples of the components of the Capital Account. **Hence, 2 and 4 are not correct.**
- **Therefore, option (c) is the correct answer.**

[Source: TH](#)

Parliamentary Standing Committee Report on Mediation Bill, 2021

For Prelims: Mediation Bill, Standing Committee, Mediation Council

For Mains: Significance of new Mediation Bill, Dispute Redressal Mechanisms, Government Policies & Interventions

Why in News?

Recently, Parliamentary Standing Committee on Law and Justice has recommended substantial changes to the Mediation Bill, 2021.

- The bill was introduced in Rajya Sabha in December, 2021, with an aim to reduce the [pendency of cases in courts](#).
- As soon as the bill was introduced in the Rajya Sabha, the Chairman of the Rajya Sabha referred it for examination.

What are the Issues Highlighted by the Panel?

- **Pre-Litigation:**
 - The panel highlighted many key issues **including mandatory and coercive nature of pre-litigation mediation.**
 - Making pre-litigation mediation necessary may result in case delays and provide another instrument in the hands of truant litigants to prolong case disposition.
- **Clause 26:**
 - The panel was against clause 26th clause of the draft which gives power to the supreme court or the High court to make laws of pre-litigation according to them.
- **Non-Applicability to Non-Commercial Disputes:**
 - The members **questioned the non-applicability of the provisions of the Bill to disputes/matters** of non-commercial nature involving the Government and its agencies.
- **Appointments:**
 - The panel had discussions also about the **qualifications and appointment of the Chairperson** and Members of the proposed Mediation Council.

What are the Recommendations?

- **Pre-Litigation:**
 - It recommended to **make pre-litigation mediation optional and further introduced it in a phased manner** instead of introducing it with immediate effect for all civil and commercial disputes.
 - While implementing pre-litigation mediation under the Commercial Courts Act, 2015, should be studied before mandating it across other case categories.
- **Appointment of chairperson:**
 - The panel recommended that the Central Government can **appoint the Chairperson and Members of the Mediation Council of India through a selection committee.**
 - In the bill it was given that **people dealing with problems related to 'Alternative Dispute Resolution' can become members** and chairman of the council if they show 'capacity' and 'knowledge and experience' in mediation.
- **Establishment of Mediation Council in Each State:**
 - Given the vast range of duties and obligations allocated to the Mediation Council of India, mediation councils should be established in each state.
 - These State Mediation Councils **should operate under the general supervision, direction, and control of the Mediation Council of India** and perform such functions as it may specify.
- **Unique Registration Number:**
 - The **Mediation Council** should issue each **mediator with a unique registration number**, and those provisions be made in the bill to allow the Mediation Council to continuously evaluate the mediator by holding training sessions on a regular basis and that the mediator earns a minimum number of credit points on a yearly basis in order to be eligible to conduct mediation.
 - Instead of multiple bodies registering mediators, **the proposed Mediation Council of India should be made the nodal authority** for the registration and accreditation of mediators.
- **Reducing Time Limit:**
 - The panel recommended reducing the time limit from 180 days to 90 days and further an extension period of 60 days instead of 180 days.
- **Reframing Definition:**
 - They also recommended reframing the new definition of mediation and do not put it separately under clause 4 as it is already given in clause 3.

What are the Highlights of the Mediation Bill, 2021?

- The objective of the bill is to settle any civil or commercial disputes through mediation before seeking court or tribunal's intervention.
- After two mediation sessions, a side may withdraw from mediation.
- The mediation procedure must be completed within 180 days, which the parties may extend by another 180 days.

- The [India Mediation Council](#) will be established to regulate the whole process.
 - Its tasks include registering mediators and recognising mediation service providers and mediation institutes.
- Further, the agreements resulting from mediation will be binding and enforceable in the same manner as court judgments.

What is Mediation?

- Mediation is a **voluntary, binding process** in which an impartial and neutral mediator facilitates disputing parties in reaching a settlement.
- A mediator **does not impose a solution** but creates a conducive environment in which disputing parties can resolve all their disputes.
- Mediation is a **tried and tested alternative method of dispute resolution**. It has proved to be a great success in the cities of Delhi, Ranchi, Jamshedpur, Nagpur, Chandigarh and Aurangabad.
- Mediation is a **structured process where a neutral person** uses specialised communication and negotiation techniques. Litigants participating in the mediation process have unequivocally endorsed it.
- Other than mediation there are some other dispute resolution methods such as [Arbitration](#), [Negotiation](#) and [Conciliation](#).
- Mediation is a type of **Alternative Dispute Resolution** because they offer an alternative to litigation.
 - ADR proceedings can be initiated by the parties or mandated by legislation, the courts, or contractual provisions.



[Source:TH](#)

Reform in Bail Law

For Prelims: Types of Offences, Power to grant bail, CrPC, IPC, Supreme Court Judgements

For Mains: Effects of indiscriminate arrests on society, Challenges of overcrowded jails in Governance, Reforms in Policing and related judgements, Constitutional Protection

Why in News?

Recently, the [Supreme Court](#) underlined that **“there is a pressing need”** for reform in the **law related to bail** and called on the government to **consider framing a special legislation on the lines of the law in the United Kingdom.**

What is the Ruling About?

- A **two-judge Bench** issued certain clarifications to an **older judgment delivered in July 2021 on bail reform** (Satender Kumar Antil vs CBI).
 - The ruling is essentially a **reiteration of several crucial principles of criminal procedure.**
- Referring to the [state of jails in the country](#), where over **two-thirds lodged are undertrials**, the Supreme Court underlined that arrest is a draconian measure that needs to be used sparingly.
- Theoretically, the court also linked the idea of indiscriminate arrests to **magistrates ignoring the rule of “bail, not jail” to a colonial mindset.**
 - **The Code of Criminal Procedure (CrPC)** was first drafted in **1882** and continues to be in use with amendments from time to time.

What is India’s Law on Bail?

- **The CrPC does not define the word bail** but only categories offences under the Indian Penal Code as **‘bailable’ and ‘non-bailable’.**
- The CrPC empowers **magistrates to grant bail for bailable offences as a matter of right.**
 - This would involve release on furnishing a bail bond, without or without security.
- In case of Non-bailable offences , a **magistrate would determine if the accused is fit to be released on bail.**
 - Non-bailable offences are **cognisable**, which enables the police officer to arrest without a warrant.
- **Section 436 of the Code of Criminal Procedure, 1973**, lays down that a person accused of a **bailable offence under I.P.C. can be granted bail.** On the other hand, **Section 437 of the Code of Criminal Procedure, 1973** lays down that the accused **does not have the right to bail in non-bailable offences.** It is the discretion of the court to grant bail in case of non-bailable offences.

What is Bail Law in the United Kingdom?

- **The Bail Act of the United Kingdom, 1976**, prescribes the procedure for granting bail.
- A key feature is that one of the aims of the legislation is **“reducing the size of the inmate population”.**
- The law also has provisions for **ensuring legal aid for defendants.**
- The Act recognises a **“general right”** to be granted bail.
 - Its **Section 4(1)** raises the presumption of bail by stating that the law applies to a person who shall be granted bail except as provided in **Schedule 1 to the Act.**
- For rejecting bail, the **prosecution must show that grounds exist** for believing the defendant

on bail would not surrender to custody, would commit an offence while on bail, or would interfere with witnesses or otherwise obstruct the course of justice; unless the defendant must be detained for his own welfare or protection; or in other circumstances.

How has the Supreme Court rules on Reforms?

▪ **Separate Law for Bail:**

- The court underlined that the CrPC, **despite amendments since Independence**, largely retains its original structure as drafted by a **colonial power** over its subjects.
 - The court made this point to signal that despite its rulings, structurally, the **Code does not account for arrest as a fundamental liberty issue in itself.**
- It also highlighted that **magistrates do not necessarily exercise their discretionary powers uniformly.**
- **Uniformity and certainty in the decisions of the court are the foundations of judicial dispensation.**
 - Persons accused with the same offense shall never be treated differently by the same court different courts.
 - Such an action would be a grave affront to [Articles 14](#) and [15](#) of the Constitution of India.
- The court advocates for framing of a separate law that deals with the grant of bail.

▪ **Indiscriminate Arrests:**

- The court noted that the culture of too many arrests, especially for non-cognisable offences, is unwarranted.
 - It emphasised that even for cognisable offences, **arrest is not mandatory and must be “necessitated”.**
 - **Such necessity is drawn** to prevent the committing of any further offense, for a proper investigation, and to prevent him/her from either disappearing or tampering with the evidence.
 - **He/she can also be arrested to prevent such person** from making any inducement, threat, or promise to any person according to the facts, so as to dissuade him from disclosing said facts either to the court or to the police officer.
 - One more ground on which an arrest may be necessary is when **his/her presence is required after arrest for production before the Court** and the same cannot be assured.”
- It held that **lower courts must satisfy that these conditions are met** and “Any non-compliance would entitle the accused for grant of bail”.

▪ **Bail Application:**

- There need not be any insistence of a bail application while considering the application under **Section 88, 170, 204 and 209 of the Code.**
 - These sections relate to various stages of a trial where a **magistrate can decide on release of an accused.**
 - These range from power of the magistrate to take bond for appearance (Section 88) to **power to issue summons** (Section 204).
 - The Supreme Court held that in these circumstances, **magistrates must routinely consider granting bail, without insisting on a separate bail application.**

▪ **Direction to States:**

- The SC also directed all **State governments and Union Territories to facilitate standing orders to comply with the orders and avoid indiscriminate arrests.**
 - The [CBI](#) has already communicated earlier orders of the Court to special judges under its jurisdiction.
- This would certainly take care of not only the unwarranted arrests, but also the clogging of bail applications before various Courts as they may not even be required for the offences up to seven years.

Legal Framework for Criminal Jurisprudence in India

- **The Indian Penal Code (IPC)** is the official criminal code of India drafted in 1860 on the

recommendations of the first law commission of India established in 1834 under the Charter Act of 1833 under the Chairmanship of Lord Thomas Babington Macaulay.

- **The Code of Criminal Procedure (CrPC)** is the main legislation on procedure for administration of substantive criminal law in India. It was enacted in 1973 and came into force on 1st April 1974.

What Protection does the Constitution provide against Indiscriminate Arrest?

- **Article 20:**
 - **Article 20 provides Protection against indiscriminate arrest by stating that** “No person shall be convicted of any offence except for violation of the law in force at the time of the commission of the act charged as an offence, nor be subjected to a penalty greater than that which might have been inflicted under the law in force at the time of the commission of the offence.”
- **Article 21:**
 - **Article 21** provides Protection of Life and Personal Liberty
 - Detention of an individual infringes the Right to Life and Liberty guaranteed under Article 21 of Constitution of India.
- **Article 22:**
 - **Article 22 provides Protection Against Arrest and Detention.**
 - The first part of Article 22 deals with the ordinary law and includes:
 - Right to be informed of the grounds of arrest.
 - Right to consult and be defended by a legal practitioner.
 - Right to be produced before a magistrate within 24 hours, excluding the journey time.
 - Right to be released after 24 hours unless the magistrate authorises further detention.

Way Forward

- **Increasing awareness of laws** among police personnel, **increasing the number** of police personnel and stations in proportion to the number of complaints in an area, and including **social workers and psychologists** in the criminal justice system.
- The focus also needs to be on the **victim’s rights** and **smart policing**. There is a need to study the **rate of conviction of police officials and their non-compliance of law**.
- As highlighted by the Supreme Court, a **separate law on bail should be drafted** for effective management of under trial cases in the country.
- Increase the **inclusiveness in the police force** from the different section of the society, so as to provide with **balanced mindset to avoid indiscriminately arrests** against any caste/class/community.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. With reference to India, consider the following statements:

1. Judicial custody means an accused is in the custody of the concerned magistrate and such accused is locked up in a police station, not in jail.
2. During judicial custody, the police officer in charge of the case is not allowed to interrogate the suspect without the approval of the court.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (b)

Explanation:

- In Judicial custody, an accused is in the custody of the concerned Magistrate and lodged in jail. While in the case of police custody, an accused is locked up in a police station. **Hence, statement 1 is not correct.**
- During judicial custody, the police officer in charge of the case may interrogate the suspect but with prior permission from the magistrate. In the case of police custody, the police officer can interrogate the suspect but must produce him before the court within 24 hours. **Hence, statement 2 is correct.**
- **Therefore, option (b) is the correct answer.**

[Source: IE](#)

Genomics Democracy

For Prelims: Genome, Genomics, Biotechnology, WHO, Science Council, Applications of Genomics, DNA, RNA

For Mains: Science behind Genome, Evolution of Genomics, Application of Genomics in human life, Measures for global cooperation in Genomics

Why in News?

Recently, [WHO](#) Science Council has released a report “**Accelerating access to genomics for global health**” advocating for passing on [Genomic](#) Technologies to developing countries.

- The report followed **WHO’s 10-year strategy for genomic surveillance of pathogens.**
 - Genomic surveillance has **played a crucial role in the global [Covid -19](#) response**, with countries like South Africa able to make essential contributions in detecting variants due to their capacities in this area.

What is WHO Science Council?

- Established in April 2021 by WHO Director. It is composed of 9 leading **scientists and public health experts from around the world.**
- The council advises the Director on high-priority issues and advances in **science and technology** that could directly improve [global health](#).
- It identified **genomics as the focus of its first study**, given the significant implications for public health.

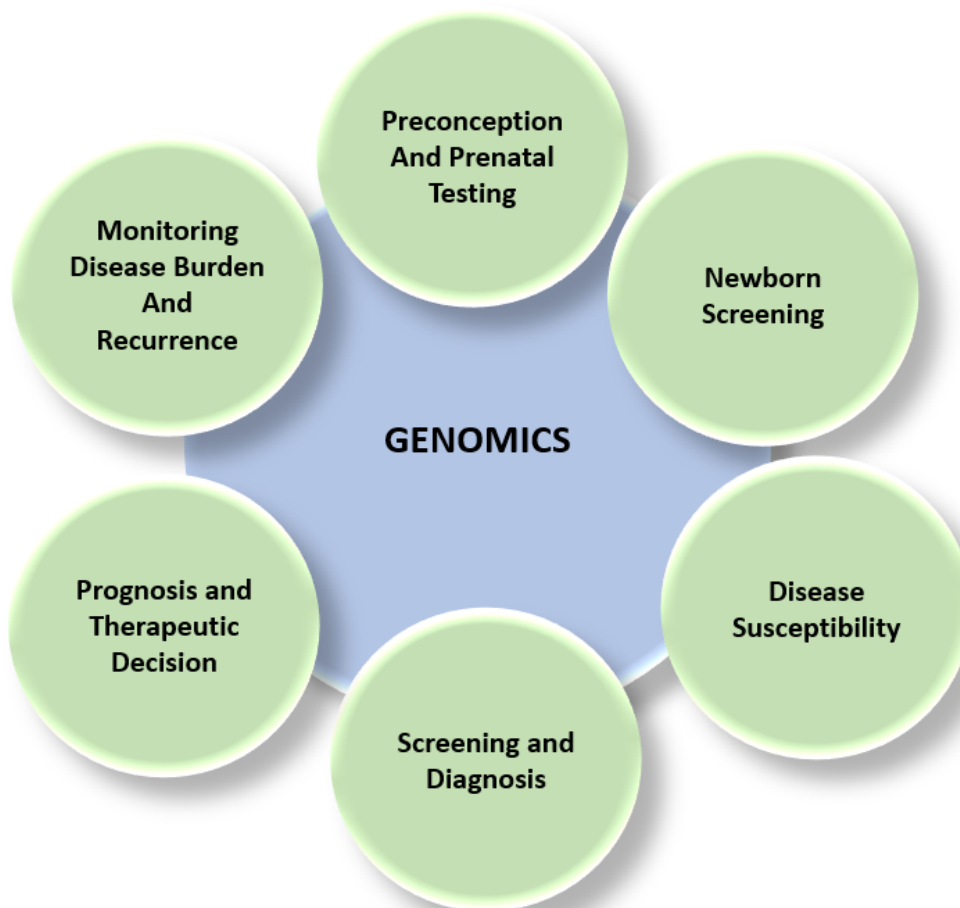
What are the Highlights WHO's Report?

- **Access to genomic technologies needs to be expanded**, especially for Low- and Middle-

Income Countries (LMIC).

- it is not **ethically or scientifically justifiable** for countries with fewer resources to gain late access to such technologies.
- **Shortfalls in financing, laboratory infrastructure, materials and highly trained personnel** need to be addressed to expand access to genomic technologies.
- The benefits will not be fully realized **unless deployed worldwide**.
 - Only through equity can science reach its full potential impact and improve health for everyone, everywhere.
- **The report recommended addressing four themes:**
 - Advocacy, implementation, collaboration and associated ethical, legal and social issues.
- The report also recommended WHO create a **Genomics Committee** to take forward the recommendations and monitor their applications.

What do we need to know about Genomics?



- **About:**
 - Genomics is the study of all of a person's genes (the **genome**), including interactions of those genes with each other and with the person's environment.
 - The field of genomics uses **biochemistry, genetics** and **molecular biology methods** to understand and use **biological information in deoxyribonucleic acid (DNA)** and **ribonucleic acid (RNA)**.
 - The technologies used in genomic science are numerous and continue to expand.
 - Those most fundamental to this field are designed to depict the biological information that is stored in **genomes**—the totality of genetic information in all animals, plants, and microbes, including viruses— as nucleotide sequences of **DNA** (or occasionally **RNA**)
- **Application of Genomics:**
 - **Control Infectious Disease:**
 - Mapping the **evolution of infectious agents**.
 - Assigning **phenotypic**, such as infectivity and pathogenicity, to specific genes.

- Evaluating an infectious agent's sensitivity or resistance to drugs.
- **Prevent and Manage Genetic Conditions:**
 - Evaluating carrier status for a **genetic disorder**.
 - Screening for and **diagnosis of single gene disorders**.
 - Assessing **disease susceptibility** or predisposition to many **chronic illnesses**.
 - Selecting medications based on **mechanism of action or genetic determinants** of metabolism to reduce toxicities.
- **Agriculture:**
 - Cataloguing of **genetic diversity** in the wild and in founder stocks
 - Assessing **genetic profiles** for health and commercial traits
 - Predicting susceptibility and responses to environmental stress
- **Benefits of Genomics:**
 - **Economic:**
 - Direct stimulus to the **commercial for-profit sector** that produces machines and reagents and provides services.
 - Indirect stimulus through **improvements in population health** (improved medical care, quality of life, potentially decreased health care utilization) and the **creation of intellectual property rights**.
 - **Job creation** in academic, medical, and commercial positions
 - **Social and Environment:**
 - Enabling progress in several [United Nations Sustainable Development Goals](#), especially **Goals 1-3, concerning poverty, hunger, and health, respectively**.
 - Further, it helps in national and international efforts to conserve marine and land resources (**Goals 14 and 15**).
 - **Health:**
 - Genomics can make enormous contributions to human health, from **surveying populations for infectious agents** — such as the virus that causes Covid-19, to **predicting and treating** a wide variety of diseases, such as cancers and developmental disorders
- **Challenges in Genomics:**
 - In case of genomic information derived from **human subjects**, it has the potential to **violate privacy, create the possibility of discrimination in employment and insurance, confer inappropriate financial gain, or convey cultural disrespect**.
 - **Insufficient protection of participants** and the data they provide, risks the abuse of genomic information, while **unduly restrictive rules about the generation, sharing, and use of genomic information, limit the benefits** that such information can provide.

What are the Recommendations of the WHO Report?

- **Promotion of genomics through Advocacy:**
 - Promote the adoption or expanded use of genomics in all **Member States through advocacy by many parties**.
 - WHO should **use its leadership role** in global public health to advocate for the expanded use of genomics in its Member States.
 - WHO should promote **affordable access to genomic technology** globally so that all Member States, especially Low and Middle-Income Countries (LMICs), can adopt and expand the use of genomics for better health and other benefits.
- **Implementation of Genomic Methodologies:**
 - Identify and overcome the **practical issues** that impede the implementation of genomics through **local planning, financing, training of essential personnel, and the provision of instruments, materials, and computational infrastructure**.
 - WHO should provide **guidance to Member States** on best practices for implementation of national or regional genomic programmes.
 - Member States should establish **national programmes** for building or expanding genomic capabilities or join a regional programme.
- **Collaboration among Entities Engaged in Genomics:**
 - Foster **commitments to collaborative activities** to promote all aspects of national and regional programmes that advance genomics in Member States.
 - WHO should **promote international collaborations** on genomics by

strengthening effective existing collaborative arrangements and by helping form new ones for specific needs.

- **Industry, academia, and civil society** should collaborate on the use of genomics to help solve important health problems, especially those prevalent in LMICs.
- **Attention to the Ethical, Legal, and Social Issues (ELSI) raised by Genomics:**
 - Promote **ethical, legal, and equitable use** and responsible sharing of information obtained with genomic methods through **effective oversight and national and international rules and standards in the practice of genomics.**
 - **WHO's Genomics Committee** should be the custodian of guidance on how to deal with the ethical and social ramifications of genomics, including the global governance of genomic information.
 - **Organizations in Member States**, especially funding agencies, academic institutions, and governmental units should be attentive to ELSIs and to efforts being made by WHO and other international bodies to develop solutions to outstanding issues related to genomic ELSIs.

UPSC Civil Services Previous Year Question (PYQ)

Q. With reference to agriculture in India, how can the technique of 'genome sequencing', often seen in the news, be used in the immediate future? (2017)

1. Genome sequencing can be used to identify genetic markers for disease resistance and drought tolerance in various crop plants.
2. This technique helps in reducing the time required to develop new varieties of crop plants.
3. It can be used to decipher the host-pathogen relationships in crops.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Explanation:

- Chinese scientists decoded rice genome in 2002. The Indian Agricultural Research Institute (IARI) scientists used the genome sequencing to develop better varieties of rice such as Pusa Basmati-1 and Pusa Basmati-1121, which currently makes up substantially in India's rice export. Several transgenic varieties have also been developed, including insect resistant cotton, herbicide tolerant soybean, and virus resistant papaya. **Hence, 1 is correct.**
- In conventional breeding, plant breeders scrutinize their fields and search for individual plants that exhibit desirable traits. These traits arise spontaneously through a process called mutation, but the natural rate of mutation is very slow and unreliable to produce all the plant traits that breeders would like to see. However, in genome sequencing it takes less time, thus it is more preferable. **Hence, 2 is correct.**
- The host-pathogen interaction is defined as how microbes or viruses sustain themselves within host organisms on a molecular, cellular, organism or population level. The genome sequencing enables the study of the entire DNA sequence of a crop, thus it aids in understanding of pathogens' survival or breeding zone. **Hence, 3 is correct.**
- **Therefore, option (d) is the correct answer.**

Source: DTE

Global Gender Gap Index 2022

For Prelims: World Economic Forum, Global Gender Gap Index 2022

For Mains: Global Gender Gap Index 2022, Gender, Issues related to women

Why in News?

Recently, the [World Economic Forum \(WEF\)](#) ranked **India at 135 out of 146 countries** in its **Global Gender Gap (GGG) Index for 2022**.

- India's **overall score has improved from 0.625 (in 2021) to 0.629**, which is its **seventh-highest score in the last 16 years**.
 - **In 2021**, India was ranked 140 out of 156 countries.
- The **gender gap** is the difference between women and men as reflected in social, political, intellectual, cultural, or economic attainments or attitudes.

INDIA'S REPORT CARD

Index/sub-index	2022 (146 countries)		2021 (156 countries)	
	Rank	Score	Rank	Score
Global Gender Gap Index	135	0.629	140	0.625
Political empowerment	48	0.267	51	0.276
Economic participation & opportunity	143	0.350	151	0.326
Educational attainment	107	0.961	114	0.962
Health and survival	146	0.937	155	0.937

What is the Global Gender Gap Index?

- **About:**
 - It **benchmarks countries** on their progress **towards gender parity in four Key dimensions with Sub Metrics**.
 - Economic Participation and Opportunity
 - Educational Attainment
 - Health and Survival
 - Political Empowerment
 - On each of the four sub-indices as well as on the overall index the GGG index provides scores between 0 and 1, where **1 shows full gender parity and 0 is complete imparity**.
 - **It is the longest-standing index**, which tracks progress towards closing these gaps over time **since its inception in 2006**.
- **Objectives:**
 - To serve as a compass to track progress on relative gaps between women and men on health, education, economy and politics.
 - Through this annual yardstick, the stakeholders within each country are able to set

priorities relevant in each specific economic, political and cultural context.

What has India Fared on Four Key Dimensions?

- **Political Empowerment (Percentage of Women in Parliament and in Ministerial Positions):**
 - India ranks the highest (48th out of 146).
 - Notwithstanding its rank, its **score is quite low at 0.267.**
 - Some of the best ranking countries in this category score much better.
 - For instance, **Iceland is ranked 1 with a score of 0.874 and Bangladesh is ranked 9 with a score of 0.546.**
- **Economic Participation and Opportunity (Percentage of women in labour force, Wage Equality for similar work, Earned income):**
 - India ranks **a lowly 143 out of the 146 countries** in contention **even though its score has improved over 2021 from 0.326 to 0.350.**
 - In 2021, India was pegged at **151 out of the 156 countries.**
 - India's score is **much lower than the global average**, and only Iran, Pakistan and Afghanistan are behind India on this metric.
- **Educational Attainment (Literacy Rate and the Enrolment rates in Primary, Secondary and Tertiary education):**
 - India **ranks 107th out of 146**, and its score has **marginally worsened since last year.**
 - In 2021, India was **ranked 114 out of 156.**
- **Health and Survival (Sex ratio at birth and Healthy Life Expectancy):**
 - India is **ranked the last (146) among all the countries.**
 - Its score hasn't changed from 2021 when it was ranked 155th out of 156 countries.

What are the Indian Initiatives to reduce Gender Gap in Social, Economic and Political Life?

- **Economic Participation and Health and Survival:**
 - **Beti Bachao Beti Padhao:** It ensures the protection, survival and education of the girl child.
 - **Mahila Shakti Kendra:** Aims to empower rural women with opportunities for skill development and employment.
 - **Mahila Police Volunteers:** It envisages engagement of Mahila Police Volunteers in States/UTs who act as a link between police and community and facilitates women in distress.
 - **Rashtriya Mahila Kosh:** It is an apex micro-finance organization that provides micro-credit at concessional terms to poor women for various livelihood and income generating activities.
 - **Sukanya Samridhi Yojna:** Under this scheme girls have been economically empowered by opening their bank accounts.
 - **Female Entrepreneurship:** To promote female entrepreneurship, the Government has initiated Programmes like Stand-Up India and Mahila e-Haat (online marketing platform to support women entrepreneurs/ SHGs/NGOs), Entrepreneurship and Skill Development Programme (ESSDP).
 - **Kasturba Gandhi Balika Vidyalaya:** They have been opened in Educationally Backward Blocks (EBBs).
- **Political Reservation:** Government has reserved 33% of the seats in Panchayati Raj Institutions for women.
 - **Capacity Building of Elected Women Representatives:** It is conducted with a view to empowering women to participate effectively in the governance processes.

What are Global Findings?

- **Ranking:**
 - **Iceland has retained its position as the world's most gender-equal country**, among 146 nations on the index.
 - Finland, Norway, New Zealand and Sweden are the **top five countries** on the list respectively.
 - **Afghanistan is the worst-performing** country in the report.
- **Scenario:**
 - Overall GGG is **closed by 68.1%**. At the current rate of progress, **it will take 132 years to reach full parity.**
 - Although no country achieved full gender parity, the **top 3 economies closed at least 80% of their gender gaps**,
 - Iceland (90.8%)
 - Finland (86%),
 - Norway (84.5%)
 - South Asia will take **the longest to reach gender parity**, which is estimated to be likely in 197 years.
- **Impact of Covid-19:**
 - The progress toward gender parity has been halted and even reversed due to the **[Covid-19 pandemic](#)**.
 - Women have borne the **brunt of the recession**, widely dubbed the 'shecession', largely because they work in sectors that were most impacted, such as retail and hospitality.
 - The pandemic recession has **hit women harder than the 2009 financial crisis** impacted male workers.

What is World Economic Forum?

- **About:**
 - The World Economic Forum is the **International Organization for Public-Private Cooperation**.
 - It was **established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland**.
- **Major Reports:**
 - **[Energy Transition Index](#)**.
 - **[Global Competitiveness Report](#)**.
 - Global IT Report
 - WEF along with INSEAD, and Cornell University publishes this report.
 - **[Global Gender Gap Report](#)**
 - Global Risk Report
 - Global Travel and Tourism Report

[Source: TH](#)

Dispute over Electoral Symbol

For Prelims: Election Symbol, ECI, EVMS, Election Symbols (Reservation and Allotment) Order, 1968

For Mains: Dispute Over Electoral Symbol and Resolution

Why in News?

Recently, a political party has approached the [Election Commission of India \(ECI\)](#) to stake claim on the [Party Symbol](#).

What is an Election Symbol?

- An electoral or election symbol is a **standardized symbol allocated to a political party**.
- They are used by the parties during their campaigning and are shown on [Electronic Voting Machines \(EVMs\)](#), where the voter chooses the symbol and votes for the associated party.
- They were introduced **to facilitate voting by illiterate people**, who can't read the name of the party while casting their votes.
- In the 1960s, **it was proposed that the regulation, reservation and allotment of electoral symbols should be done through a law of Parliament, i.e. Symbol Order**.
 - In a response to this proposal, the ECI stated that the recognition of political parties is supervised by the provisions of [Election Symbols \(Reservation and Allotment\) Order, 1968](#) and so will the allotment of symbols.

What are the EC's powers in such Disputes?

- The [Election Symbols \(Reservation and Allotment\) Order, 1968](#) empowers the EC to recognize political parties and allot symbols.
 - Under **Paragraph 15** of the Order, it **can decide disputes among rival groups or sections of a recognised political party staking claim** to its name and symbol.
- On disputes among rival groups, **the Symbols Order**, states that the **EC is empowered to take decision after considering all the available facts and circumstances of the case** that one rival section or group or none of such rival sections or groups is that recognized political party.
- The **decision of the Commission shall be binding on all** such rival sections/groups.
 - This applies to disputes between recognized national and state parties.
- For splits **in registered but unrecognized parties**, the EC usually **advises the warring factions to resolve their differences internally** or to approach the court.

How does the EC decide?

- The ECI **primarily ascertains the support enjoyed by a claimant within a political party** in its organizational wing and in its legislative wing.
- **For Organizational Wing**, the Commission examines **the party's constitution and its list of office-bearers submitted when the party was united**.
 - ECI identifies the apex committee(s) in the organisation and finds out how many **office-bearers, members or delegates support the rival claimants**.
- **For the Legislative Wing**, the **party goes by the number of [MPs \(Member of Parliaments\)](#) and [MLAs \(Member of Legislative assembly\)](#) in the rival camps**. ECI may consider affidavits filed by these members to ascertain where they stand.
- The ECI **may decide the dispute in favour of one faction** by holding that it commands enough support in its organisational and legislative wings to be entitled to the name and symbol of the recognised party.
- It **may permit the other group to register itself as a separate political party**.

What happens when there is no certainty?

- Where the party is either vertically divided or it is not possible to say with certainty which group has a majority, the **EC may freeze the party's symbol and allow the groups to register themselves with new names** or add prefixes or suffixes to the party's existing names.

What happens when rival factions Reunited in future?

- If reunited, the **claimants may approach the EC again** and seek to be recognised as a unified party.
- The EC is also empowered to recognise mergers of groups into one entity. It may restore the symbol and name of the original party.

[Source: IE](#)

HPV Vaccine

Why in News?

Cervavac, a vaccine developed by the **Serum Institute of India (SII)**, has recently acquired market authorization from the [Drugs Controller General of India \(DGCI\)](#).

- it is India's first **Quadrivalent Human Papillomavirus Vaccination (qHPV)** designed to protect women from cervical cancer.

What is Cervical Cancer?

- **Cervical cancer** is a prevalent sexually transmitted infection.
- It's a type of cancer that occurs in the cells of the cervix, the lower part of the uterus that connects to the vagina.
- It is mostly caused by long-term infection with particular forms of HPV.
- It is the second most prevalent cancer form and the second leading cause of cancer death in women of reproductive age (15-44).
- **Indian Perspective:**
 - According to the **World Health Organization's International Agency for Research on Cancer**, India accounts for roughly **one-fifth of the global burden**, with 1.23 lakh cases and around 67,000 fatalities every year.

What is the Significance of the new Vaccine?

- It's based on **VLP (Virus-Like Particles)**, similar to the [Hepatitis B](#) vaccination, and gives protection by producing antibodies against the HPV virus' L1 protein.
 - It is said to be effective against four strains of the virus - Type 6, Type 11, Type 16 and Type 18.
 - A **quadrivalent vaccine** is a vaccine that works by stimulating an immune response against four different antigens, such as four different viruses or other microorganisms.
- It has a significant potential to eliminate cervical cancer and it would be helpful if it will be included in national HPV vaccination efforts and offered at a **lower cost** than existing vaccinations.
 - Existing Two vaccines licensed globally are available in India — a quadrivalent vaccine (Gardasil, from Merck) and a bivalent vaccine (Cervarix, from GlaxoSmithKline) and are costly and none of them are included in the [national immunization program](#).
- After the DGCI approval, it would enable the government to procure vaccines in bulk in order to vaccinate around 50 million girls aged between 9 to 14 years.
- The vaccine is extremely effective only when it's administered before the first sexual intercourse.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. 'Mission Indradhanush' launched by the Government of India pertains to (2016)

- (a) immunization of children and pregnant women
- (b) construction of smart cities across the country
- (c) India's own search for the Earth-like planets in outer space
- (d) New Educational Policy

Ans: (a)

Exp:

- Mission Indradhanush is an immunization scheme launched by the Ministry of Health and Family Welfare, GoI on 25th December, 2014.
- Depicting seven colours of the rainbow, it aimed to cover all those children by 2020 who are either unvaccinated, or are partially vaccinated against seven vaccine preventable diseases which include diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B.
- The mission is technically supported by WHO, UNICEF, Rotary International and other donor partners. Therefore, option (a) is the correct answer.

[Source: IE](#)

Acharya Prafulla Chandra Ray

Why in News?

Recently, **Ministry of Culture** organised a curtain raiser for two days International Conference on the “**Contributions of Acharya Prafulla Chandra Ray as a Chemist and Freedom Fighter**” at the **Department of Chemistry, Delhi**.

What do we know about the Conference?

- **About:**
 - The Conference will be held on the **161st birth anniversary of Acharya Prafulla Chandra Ray** on 2nd-3rd August 2022, under the aegis of [Azadi Ka Amrit Mahotsav](#).
 - **The Department of Chemistry** is celebrating its centenary year along with the **University of Delhi and Vijnana Bharti (VIBHA)** is going to organize jointly with **Indraprastha Vigyan Bharti, New Delhi and the Ministry of Culture, Government of India, New Delhi**.
- **Objective:**
 - Expand the **legacy and contribution** of Acharya Prafulla Chandra Ray in Society, with an aim to **increase general awareness** and background of **ancient chemistry** along with its importance.
 - It is unexpected that the **government** is updating the **education system from the traditional concept of the 1980's** to align with the **aspirational goals of 21st century education including SDG4 (Quality Education)**, while building upon India's traditions and value systems.

Who was Acharya Prafulla Chandra Ray?



- Known as **“Father of Indian Chemistry”**, Prafulla Chandra Ray (1861-1944) was a well-known **Indian scientist and teacher** and one of the first **“modern”** Indian chemical researchers.
- Originally trained at the **University of Edinburgh**, he worked for many years at **Presidency College in Calcutta and then at Calcutta University**.
- He discovered the stable compound **Mercurous Nitrite in 1895**.
- The British Government **first honored him with the imperial title of CIE (Companion of the Indian Empire)**, and then with the **Knighthood in 1919**.
- In 1920, he was elected **General President of the Indian Science Congress**.
- As a nationalist **he also wanted the Bengalis to come up in the world of enterprise**.
 - He himself set an example by establishing a **chemical firm called the Bengal Chemical and Pharmaceutical Works (1901)**.
- He was a true rationalist and was completely **against the caste system** and other **irrational social systems**. He persistently carried on this work of social reformation till he passed away.
- A **postage stamp** was issued on him by **India Post on 2nd August 1961** to commemorate his Birth Anniversary.

[Source: PIB](#)